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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,662	04/02/2004	James R. Ober	0241-P03290US0	3378
110	7590	10/11/2005	EXAMINER	
DANN, DORFMAN, HERRELL & SKILLMAN 1601 MARKET STREET SUITE 2400 PHILADELPHIA, PA 19103-2307			AMIRI, NAHID	
			ART UNIT	PAPER NUMBER
			3679	

DATE MAILED: 10/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

10/817,662

Applicant(s)

OBER, JAMES R.

Examiner

Nahid Amiri

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 15-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 26-29 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>22 July 2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-14 and 26-29, drawn to a mounting device, classified in class 403, subclass 369.
- II. Claims 15-25, drawn to a method for mounting an elongated element having a generally cylindrical bore onto a shaft, classified in class 403, subclass 381.

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case product as claimed can be made by another method than that of the method of group II. In particular, the Group I invention can be made by a method that provides only one mounting device.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Stephen H. Eland August 31, 2005 a provisional election was made to invention of Group I, claims 1-14 and 26-29 without traverse to prosecute the invention apparatus of movable joint. Affirmation of this election must be made by applicant in replying to this Office action. Claims 15-25 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Claim Objections***

Claim 9 is objected to because of the following informalities: line 6, "inner sleeve" should change to --the inner sleeve--, Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 2, 6, 8-13 and 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,695,297 Geib.**

In regard to claim 1: Geib discloses a mounting device (10) (Fig. 6) for anchoring a machine element (310) on the cylindrical shaft (12), including an outer sleeve (350) having an internal bore having a tapered portion and a frustoconical external surface, (column 7, lines 11-17) inner sleeve (320) including an internal bore a threaded portion (325); an external tapered portion configured to cooperate with the tapered portion of the outer sleeve (350); (column 7, lines 39-41) an axially elongated slot (322) extending along the inner sleeve (322) to allow expansion and contraction of the inner sleeve (320), (column 7, lines 8-9) a locking ring (340) threadedly engaging the threaded portion of the inner sleeve (320).

In regard to claim 2: Geib discloses (Fig. 6) wherein turning the locking ring (340) a second direction opposite the first direction operates to displace the inner sleeve (320) in a second direction relative to the outer sleeve (350) so that the external tapered portion of the inner sleeve (350) rides down the internal tapered portion of the outer sleeve (350) allowing the internal bore of the inner sleeve (320) to expand, thereby loosening the device.

In regard to claim 6: Geib discloses (Fig. 6) the inner sleeve (32) having a plurality of axial slots (322) extending through the inner sleeve (320) along the tapered portion.

In regard to claim 8: Geib discloses (Fig. 7) (column 7, lines 2-7) mounting device having a connector (324') connecting the outer sleeve (350') and the locking ring (340') to impede relative axial displacement between the outer sleeve (350') and the locking ring (340')

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while allowing relative circumferential displacement between the locking ring (340') and the outer sleeve (350').

In regard to claims 9 and 10: Geib discloses a mounting device (10) (Fig. 6) including an outer sleeve (350) having a generally frustoconical external engagement surface and internal bore having a diameter; a radially deformable inner sleeve (320) having an internal bore and configured to cooperate with the bore of the outer sleeve (350); the outer sleeve (350) and inner sleeve (320) having a threaded portion, (Fig. 7) outer sleeve (350') and inner sleeve having a first connector (flange) (324'); a locking ring (340') having a threaded portion configured to threadably engage the threaded portion of outer sleeve (350'), second connector (groove) (326') configured to cooperate with the first connector (324') to connect the locking ring (340') with outer sleeve (350'), and wherein the outer sleeve walls are substantially solid along the length of the engagement surface.

In regard to claims 11-13, 27 and 28: Geib discloses (Fig. 6) wherein the outer sleeve bore having a portion having walls tapered and the external surface of the inner sleeve (320) including a tapered portion configured to cooperate with the tapered bore of the outer sleeve (350), wherein the engagement surface of the outer sleeve (350) is substantially rigid, and wherein the inner sleeve (320) having an axial slot (322).

In regard to claim 26: Geib discloses a mounting device (10) (Fig. 6) including an internal bore onto a shaft (12) comprising an outer sleeve (350) having an outer diameter greater than the internal bore of the element, and an internal bore having a tapered surface; a radially deformable inner sleeve (32) comprising an internal bore and configured to cooperate with the bore of the outer sleeve (35) to affect contraction of the inner sleeve (320) bore; the outer sleeve (350) and inner sleeve (320) having a threaded portion (342), the outer sleeve (350), the outer sleeve (350') and inner sleeve having a first connector (flange) (324'); a locking ring (340') having a threaded portion configured to threadably engage the threaded portion of outer sleeve (350'), second connector (groove) (326') configured to cooperate with the first connector (324') to connect the locking ring (340') with outer sleeve (350'), and wherein the outer sleeve walls are substantially solid along the length of the engagement surface, the outer sleeve is substantially rigid.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 3-5, 14 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Geib.**

In regard to claims 3, 14 and 29: Geib discloses the claimed invention except at least one of the inner sleeve and the outer sleeve is formed of plastic, the engagement surface is formed of a plastic material. Plastic and its properties are well-known per se. It would have been obvious to one of ordinary skill in the art at the time of invention was made to form the inner and outer sleeves from plastic for such reasons as to provide a rust proof material which protect the mounting device from rust and corrosion caused by moisture.

In regard to claims 4 and 5: Geib discloses the claimed invention except for the frustoconical engagement surface of the outer sleeve is formed of a plastic having a coefficient of friction of at least 1.0 and less than 1.0. In view of the fact that the two ranges together encompass the entire range of possibilities, it is inherent that Geib meets the limitation of one of these claims. Nevertheless, it would have been an obvious matter of engineering design choice to form the frustoconical engagement surface of the outer sleeve from plastic with any desired coefficient of friction (i.e., at least 1.0 or less than 1.0) so as to achieve the desired degree of frictional locking.

**Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Geib as applied to claims 1, 2, 6, 8-13 and 26-28 above, and further in view of US Patent No. 3,003,149 Grashow.**

In regard to claim 7: Geib discloses the claimed invention except for the forward end of the outer sleeve having a reduced diameter opening having a diameter that is smaller than the outer diameter of the forward end of the inner sleeve. Grashow teaches a placement antenna (Fig. 2) having the forward end of the outer sleeve (30) with a reduced diameter opening having a diameter that is smaller than the outer diameter of the forward end of the inner sleeve (36). It would have been obvious to one of ordinary skill in the art at the time of invention was made to provide Geib with a diameter opening at the forward end of the outer sleeve smaller than the forward end diameter of the inner sleeve as taught by Grashow in order to tightly fastened the forward end of the outer sleeve to the lower end of the shaft.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,357,958 B1 Geib et al., cited art show a mounting device with inner, outer sleeves and locking ring.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nahid Amiri whose telephone number is (571) 272-8113. The examiner can normally be reached on 8:30-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nahid Amiri  
Examiner  
Art Unit 3679  
September 14, 2005



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